

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (previously presented): An optical semiconductor device, comprising:
an optical semiconductor chip sealed in a surrounding soft resin;
a holder formed around said soft resin and integrally with a lead frame; and
a covering lens composed of a transparent resin, harder than said soft resin, wherein said holder has an aperture configured to relieve a state of hermetic sealing for said soft resin and formed in a direction that imposes no optical influence on a function of said optical semiconductor chip.

Claim 2 (previously presented): The optical semiconductor device according to claim 1, wherein said lead frame protrudes into said aperture of said holder so as to occupy an inner rim of said aperture at a ratio below $\frac{1}{2}$ in length.

Claim 3 (new): The optical semiconductor device according to claim 1, wherein the holder is made from a hard resin that is harder than the soft resin.

Claim 4 (new): The optical semiconductor device according to claim 1, wherein the aperture extends below the optical semiconductor chip.

Claim 5 (new): The optical semiconductor device according to claim 4, wherein the aperture defines a space into which the soft resin can expand into during operation of the optical semiconductor device.

Claim 6 (new): The optical semiconductor device according to claim 1, wherein the aperture defines a space into which the soft resin can expand into during operation of the optical semiconductor device.

Claim 7 (new): The optical semiconductor device according to claim 1, wherein the holder has a bottom surface and the soft resin has a bottom surface, and a portion of the soft resin bottom surface is spaced from the holder bottom surface along an axis of the aperture such that a space is defined in the aperture of the holder.

Claim 8 (new): The optical semiconductor device according to claim 7, wherein the optical semiconductor chip is a light emitting device.

Claim 9 (new): The optical semiconductor device according to claim 1, wherein the lens is located above the optical semiconductor chip, and the aperture and soft resin are configured such that a space is located below the optical semiconductor chip.

Claim 10 (new): An optical semiconductor device, comprising:

- an optical semiconductor chip:

- a soft resin located adjacent the optical semiconductor chip;

- a holder located adjacent the soft resin, wherein the soft resin and the holder form a space located below the optical semiconductor chip, and the space is configured such that the soft resin can expand into the space during operation of the optical semiconductor device;

- a lead frame connected to the semiconductor chip; and

- a covering lens that is harder than the soft resin and located above the optical semiconductor chip.

Claim 11 (new): The optical semiconductor device according to claim 10, wherein the holder is formed with an aperture that has an inner periphery, and the lead frame protrudes into the aperture of the holder along less than one half of the inner periphery of the aperture.

Claim 12 (new): The optical semiconductor device according to claim 10, wherein the holder includes an aperture that extends below the optical semiconductor chip.

Claim 13 (new): The optical semiconductor device according to claim 12, wherein the optical semiconductor chip is a light emitting device.

Claim 14 (new): The optical semiconductor device according to claim 10, wherein the holder has a bottom surface and the soft resin has a bottom surface, and a portion of the soft resin bottom surface is spaced from the holder bottom surface to form the space.

Claim 15 (new): The optical semiconductor device according to claim 10, wherein the holder includes an aperture that is configured to relieve a state of hermetic sealing for the soft resin and is formed in a direction that imposes no optical influence on a function of the optical semiconductor chip.

Claim 16 (new): The optical semiconductor device according to claim 10, wherein the covering lens is immediately adjacent and in contact with the soft resin.

Claim 17 (new): A method of making an optical semiconductor device, comprising:
providing a holder that includes an aperture and a lead frame located therein;
connecting a semiconductor chip to the lead frame;
injecting a soft resin into the aperture to seal the semiconductor chip; and
forming a space below the semiconductor chip in the aperture such that the soft resin can expand into the space during operation of the optical semiconductor device.

Claim 18 (new): The method of claim 17, further comprising:
attaching a covering lens to a front of the holder above the semiconductor chip.

Claim 19 (new): The method of claim 17, further comprising:
degassing the soft resin after injecting the soft resin into the aperture.

Claim 20 (new): The method of claim 17, further comprising:

heating the soft resin after injecting the soft resin into the aperture.